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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/604,014

06/20/2003

RICHARD A. CLARK

CLARI01

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7590

08/13/2004

ROBERT S. SMITH

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MANCHESTER, CT 06040

EXAMINER

VRABLIK, JOHN J

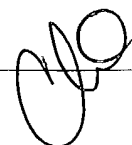
ART UNIT

PAPER NUMBER

3748

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/604,014	<b>Applicant(s)</b> CLARK, RICHARD A. 	
	<b>Examiner</b> John J. Vrablik	<b>Art Unit</b> 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: Par. [0002], penultimate line, "her" should be --nor--; par. [0018], line 3, "really" should be --radially--; and par. [0035], line 15, "10" should be --7--.

Appropriate correction is required.

### ***Claim Objections***

Claim 16 is objected to because of the following informalities: In line 4, "said;" should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

Claims 1-15 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said first and second generally planar frames" in lines 11 and 12. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "said frames" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 4-8 and 10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by any of Wood (Fig. 3), Tsui et al. (Tsui) (Fig. 1), Uagm and Kharlamov. Each of the references shows an apparatus for harvesting energy from a fluid stream which comprises a rotor comprising a plurality of generally planar frames (C in Wood, unnumbered but attached to the vertical shaft in Tsui, 2 in Uagm and 2 in Kharlamov) radiating from a common geometric axis, each of the frames having first and second opposed edges, each of the first opposed edges each being disposed proximate to the common geometric axis, each of the frames having an opening therein; and a plurality of flappers (D in Wood, unnumbered but hinged to the frames in Tsui, 3 in Uagm and 4 in Kharlamov), each of the flappers having first and second opposed edges, each of the first edges of the flappers being hinged to one of the second edges of one of the frames, each of the planar flappers having a part thereof that overlaps at least a part of the frame to which it is mounted when the flapper is disposed in face to face abutting relationship to the frame on which it is mounted so that the flapper will not pass through the opening as recited.

Claim 2 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kharlamov. Each flapper of Kharlamov overlaps the frame to which it is mounted along at least two sides thereof as claimed.

Claim 11 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Wood (Fig. 1) or Kharlamov. Each flapper of Wood and Kharlamov has a dimension in a direction parallel to the common geometric axis that is much greater than the dimension in a direction perpendicular to the common geometric axis.

Claim 12 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wood (Fig. 1). Each frame of Wood has a dimension in a direction parallel to the common geometric axis that is much greater than the dimension in a direction perpendicular to the common geometric axis.

Claim 13 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Tsui or Uagm. The flappers of the references are generally rectangular.

Claim 14 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Uagm. In Uagm each frame is generally rectangular as claimed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over any of Wood, Tsui, Uagm and Kharlamov. The claim recites that the frames are manufactured of a reinforced composite material which is well know in the art. It would have been obvious to one having ordinary skill in the art to make the frames of any of the primary references of a reinforced composite material which has the desired properties of strength and light weight for a rotating frame.

Claims 3 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of Wood, Tsui, Uagm and Kharlamov in view of Jackson (Fig. 4). The claims recite that the flappers overlap the frames. Jackson teaches having the flappers (12)

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overlap the frame (11) so as to completely block the opening in the frame. It would have been obvious to one having ordinary skill in the art to have the flappers of any of the primary references completely overlap the openings in the frames, as taught by Jackson, so as to maximize the force of the fluid stream on the frames.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hall shows single support arms (7) for flappers (10), and Hunt further discloses a plurality of frames (12, 14, 16 and 18) and flappers (28) rotating about a vertical axis (10).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Vrablik whose telephone number is (703) 308-2629. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John J. Vrablik  
Primary Examiner  
Art Unit 3748

jiv